DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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RAYNOLDS & NOURSE, *Proprietors.* OFFICE, QUINCY HALL, BOSTON. S. W. COLE, *Editor.*

LEGISLATIVE AID TO AGRICULTURE.

This subject has been under consideration by the joint committee of the two branches of the Legislature on agriculture, and their report will doubtless be before the public before this article is published. As large sums of the public money have been expended on colleges, and other professions have received the principal benefit from them, there should now be something done for the instruction of farmers.

Our colleges are open to farmers as well as to other classes, but the instruction given in them is not suitable to qualify a farmer for his calling, hence but very few who persue farming as a main business ever graduate at our colleges. We should have some mode of imparting information to farmers that is of a suitable character for their wants, and the system should be such that it will be easily accessible, and open to all, even the most humble in pecuniary condition.

But in urging the claims of farmers on the bounty of the State, we would not found it on the ignorance of farmers, of which so much has been said in our public discussions, and by orators at farmers' festivals, but we would found their claims on the fact that the State has given them only one talent, and they have improved upon it, equal to others who have had ten talents from the public chest; and as they have gained ten talents from one, they should be made ruler over many.

We believe that the State in providing to enlighten farmers will not at first establish a school or college with a pattern and experimental farm; for it will be very expensive, and its operation in the way of improvement upon the whole agricultural community will be slow, therefore a failure would be likely to result from an expensive establishment in the beginning. The time may come when a school or college and public farm may be necessary, and the people generally prepared to bear the expense, even if it be high.

In our remarks on this subject at the State House, we suggested that as an economical and efficient mode of diffusing valuable practical information among farmers, there should be a board constituted of farmers well experienced in their calling, with an able agricultural chemist, who should collect, and by proper mode diffuse all over the State the best practical and scientific information on agriculture.

Such a board, or one of a similar character, will, we trust, be established. But as we understand that some persons who take an interest in this cause are very anxious to have the Governor, Lieut. Governor, and Secretary of State, members of this board *ex officio*, we do sincerely hope that no such arrangement will be made; for it frequently happens that the governor and other dignitaries of a State know nothing about farming. Then why should the board be encumbered with such men. Again it would be connecting the board with political affairs, of which it should be perfectly free. Before an election the farming qualities of candidates would be a subject of discussion, reproach and enconium, and some candidates would be found digging in their potato patch, or in their patch of thistles and weeds, who had hardly thought of using the hoe until they were nominated for office, and we should have farmers made up for the occasion at short notice; and those who never knew much about crops, excepting in consuming them, would be writing dissertations (borrowed) and delivering lectures to farmers of 50 years experience.

We have too much of this now. Leave the management of farming, even the institutions of the State's bounty, to farmers themselves. We cannot find better men for the business. We dare say that if the State provides for instructing farmers in accordance with the views of farmers, and then leaves the management of the business to the same class, there will be a good account given of what the State confides to their management, and that there will be, as there has already been done, greater improvement among the cultivators of the soil, than in any other profession. It is highly important to be-

gin right in this business, and lay a good foundation in the minds of farmers, and not begin without a substantial base and rear a splendid fabric, a grand scheme, that will totter and fall before it is completed. Practical farmers must see, feel and acknowledge the want of a college, and be conscious of its utility, and its preference to other plans, before it can succeed. Others may dwell eloquently on its advantages and its beauty, but farmers must support it with their purses, and their influence, else it must fail and pass away, as a scheme. In due time a school and State farm may be desirable, and they may grow out of the doings of a board of agriculture.

RAISING WHEAT IN NEW ENGLAND.

A great deal is said upon this subject, at the present time; and it is urged that we should raise our own bread-stuff in this part of the country, and no farmer should buy flour while he has land that will yield a crop of wheat. We have no doubt that many farmers would find it profitable to raise their own bread-stuff who do not now accomplish this desirable object; but there are others who give their whole attention to the dairy business, or to raising other profitable crops, or who are near a market where milk, fruit, and vegetables are in demand, who may gain by buying instead of raising their materials for bread.

There is in New England waste land sufficient, if improved, to supply the whole population with bread. And there are many farmers that live in the interior where land is cheap, who raise crops and sell them at a low price, and then buy flour that has been brought one thousand miles to a market on the sea-board, and is then carried back into the country at an extra expense of 50 cents on a barrel.

It may not be profitable for farmers in New England to supply our large markets with grain and flour, but we believe that there are a great many farmers who live remote from markets where flour is high, and other produce low, who will find it profitable to raise grain enough for their own supply.

Most of the tillage lands in New England are adapted to the raising of wheat, and with good management, it usually succeeds well. The best soil is one that is rather strong, of fine tilth, and put in rather high condition for previous crops. This preparation is better than to apply manure to the wheat crop, as in such case there may be a rapid growth, producing the rust. Yet if the land is rather poor, a moderate dressing of well decomposed manure may be applied to advantage. It should be intimately mixed with the soil.

It is of great importance to select the best variety of wheat for seed. By using sieves of suitable size, the small shriveled grain may be excluded; and by washing in salt water, the light grain will swim and may be skimmed off. After draining off the salt water, apply lime.

Culture of Celery.—For early use it should be started in hot-beds; but for later use, it may be sown out in April. When the plants are of suitable size, transplant into a rich deep soil. Set in trenches 2 1-2 feet apart, and 15 inches deep. Put a few inches of mellow manure into the bottom of the trench, and as much good loam, and mix intimately together. Set the plants six inches apart. If convenient take up a ball of earth with each, and transplant in the evening, or in damp weather.—Stir the soil frequently, and as the plants grow, earth up gradually, until the trench is nearly filled, leaving only a small depression to catch the water.

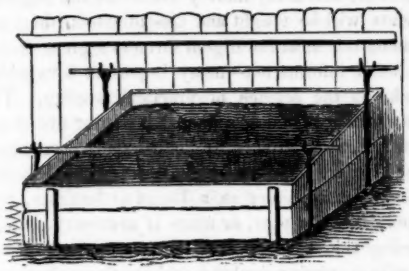
On Setting Fruit Trees.—Mr. William G. Churchill, Deerfield, N. H., inquires whether it would not be well in setting standard apple trees, to let them lean to the south in order to avoid the sun scald. He observes that a large part of the old trees in that vicinity lean in a north-western direction, which he attributes to the prevalence of south-easterly winds.

In any location where winds generally prevail in one direction, there is an advantage in setting the tree leaning a little to the windward; and in case the wind is in a southern direction, there is the additional advantage in avoiding the powerful effects of the sun on the trunk. But this effect of the sun is less on the apple than on the cherry and pear.

Reward for a Remedy for the Potato Rot.—A reward of $10,000 has been offered by the government of this commonwealth, to any person in the State who shall discover a complete remedy against the potato rot, to be tested by experiment for five years to the satisfaction of the governor and council.

☞ We published an article sometime since in regard to some person selling some poor apples to Dr. Kelley, of Newburyport, for the Danvers Winter Sweet; and as Mr. W. G. Lake, of Topsfield, is an extensive dealer in fruits and trees, and he thought that article reflected upon his reputation, we give notice that Dr. Kelley says that it has no refer ence to that gentleman.

Skill in Farming.—Skill adds more to the profits of farming than hard work. In the article of butter for instance, the same outlay is required, or nearly the same, to make a hundred pounds of poor butter, as would be required to make a hundred pounds of that which is good. But, when the two articles are marketed, there may be five or six dollars of clear extra profit in the pocket of the skilful dairyman. The importance of scientific farming is realized by those who have found such benefit as is noted above in nearly every department of their labor.



For the New England Farmer.

THE FARMER'S HOT-BED.

FRIEND COLE:—I regret that I have been unable to furnish the article I promised you in relation to what I shall call the *Farmer's Hot-Bed* at an earlier date, for the season of preparing them has now arrived, and if my suggestions shall benefit any of your readers, for the present season, it will be only those who act at once in relation to the matter. Having a great fondness for a good garden and its varied products, I have oftentimes, in years past, felt the want of some cheap arrangement, by which I could bring forward certain vegetables earlier than I could get them, by planting out the seeds in my garden, in the usual way.

A hot-bed with a glass frame, &c., used by our best cultivators, was out of the question, for it cost too much, for a poor man. After a variety of efforts to effect the desired object, cheaply and certainly, I have settled on the method I am about to describe. The engraving ~~at the head of the column~~ will give the reader, at a glance, the manner of constructing the bed, which need not be more than four feet wide and six or eight feet long, according to the fancy of my brother farmer.

Some bits of old plank, or even inch boards, will answer for material, with a few stakes to hold them in place. The stakes at the ends may be crotched, as in the cut, to support the poles or straight stakes may be used and the tops sawed off, after being driven, and the poles fastened on the top with nails. In constructing the bed no boards will be needed in the rear if it is backed, as it should be, against a building, a board fence, or a close wall. The bed should, if possible, have a south-eastern or southern exposure, though I once succeeded very well with one having an eastern exposure. About two feet, or thirty inches high in the rear, and eighteen or twenty inches front, will give sufficient depth. The enclosed space should be filled, to within six inches of the top, with fresh unfermented manure from the horse stable, which must be trodden well together. Four or five inches of good loam from the garden, enriched with a few ashes, a little ground plaster, and some fine well rotted manure, spread over the surface, will complete the bed. The two poles placed lengthwise, across and over the bed, are put there to support on old blanket rug or piece of sail cloth with which the bed must be nightly covered, from the time of planting it until the plants are removed. The cloth should be thrown off in the morning, as soon as the sun is up. A few short boards placed near the bed will answer to protect it in case of a storm.

The bed may be constructed and fitted ready for planting, by an active man who has the materials, in two hours. We will now proceed to plant it. Take your jack-knife in your pocket, Mr. Farmer, and visit your wood lot, if you have one, and if not, your neighbor's, with his consent of course. Look out some white birches three or four inches through. Pieces of old pasteboard, and some other cheap materials, will answer. Split the bark up and down and then peel it off in strips about four or five inches in width. Two or three dozen will do. Get your wife, if you have one (and if you have none, drop the hot-bed for this season and go and look up one,) to sew with a strong thread the ends of each strip together, lapping them half an inch at top and an inch at bottom, so that the pot may be a little less in diameter at bottom than at top. Two or three stiches each at top and bottom will do. Prepare some loam from the ground, as directed above, and fill each pot, setting it down on the floor during the operation, and pressing the earth in pretty firmly. When within one inch of being filled, put in your seeds. Of the squash, about two, of the melon or cucumber, four, about two inches apart, and cover them, pressing the earth moderately upon the seeds. Place your pots close together on the centre of your bed and fill the space between them with loam, banking up around the outside row of the pots with the same material. Your pots will occupy but a small part of the surface of your bed, and on the remaining portion you can sow your tomato, lettuce, pepper and cabbage seeds, and grow fine large plants by the time your garden is sufficiently warm to have them transplanted.

The ammonia given off from the fermenting manure, will pass up through the soil of your pots and other parts of the surface of the bed, and increase greatly its fertility and the growth of your plants. When the roots of your squash and cucumber plants, begin to show themselves at the bottom of the pots, which you can learn by raising one of them occasionally, they must be removed to your garden. Prepare your hills for receiving them just as you would if you were about to plant the seed. That done, open the centre of each hill to sufficient depth to receive the pot, and have the surface on the same level with the soil around. Press your pot firmly in its place and then with the point of your knife, clip the string at top and bottom and peel off the bark from the ball of earth containing the plant. The roots of the plant have by this time formed a complete net work through the ball of earth and prevent its falling apart, as you remove the bark. Bring the earth around the plant and press it pretty firmly; give it a little pure water (if there be rum in it the plant will die) and your plant, if the earth has become tolerable, warm will hardly know that it has been removed from the hot-bed. By this method, which can be adopted with little labor and no expense, two or three weeks are gained for plants which require a long season or of which an early product is desired. If the bed becomes too hot, raise the pots and put more soil under them Give the bed water from time to time with the water-pot, as you can graduate the quantity thus better than by leaving it uncovered during a shower.

If you have small boxes, as every farmer should have, to protect plants when first transplanted, or from the effects of cold night air, place them over your squash and melon plants for the first twenty-four hours and during the nights of the first week after removing them to your garden. By this method I raised ~~in the year 1848~~, on a piece of ground twenty-two feet square, a crop of winter squashes,

for which I was offered as they lay on the earth where they grew seven dollars. I did not accept the offer, for they were worth more money. Some straw or old hay placed around your bed will prevent the radiation or loss of heat. C. JEWETT.

ELEVENTH AGRICULTURAL MEETING

AT THE STATE HOUSE, MARCH 25TH, 1851.

Hon. Marshall P. Wilder in the Chair,—Subject, "Agricultural Education, continued."

Col. Wilder made some remarks on the importance of science in agriculture, as it had greatly aided other arts. He inquired how this should be done. The plan of agricultural schools of Europe, though not perfect models, will be of advantage in establishing similar institutions in our own country. No country is better adapted than ours to schools of this character. There is only one way to prepare teachers of agriculture, and that is by a school; and there ought to be a mother institution to regulate the whole and furnish teachers. France had made very liberal appropriations for this purpose. As our lands are becoming exhausted, something should be done to check the evil, or posterity will suffer by our neglect.

Mr. Cole, of the N. E. Farmer, said that this subject had been discussed for a number of years, and gentlemen of other professions had come forward and spoken of the great ignorance of farmers, and the little improvements that there had been made. He contended that farmers were no more ignorant than other professions, and for 20 years past they had made as much advancement in their calling. Our system of jurisprudence was becoming more complicated and expensive. Although we have a large number of physicians, people are suffering from disease, and going down to premature graves. If theologians have made advancement for 20 or 50 years past; why is there not less wickedness than formerly? Why do not gentlemen in these professions make improvements in their own line, instead of reproaching farmers with ignorance? Merchants are no better skilled than farmers, as they make far more failures. In some branches of mechanics great improvements have been made; in others not. The sole leather tanned in the country as was the practice 50 years ago, is worth twice as much as that tanned by what is called the improved process, which, instead of an improvement, is only a deception. No class has made more improvement for 20 years than farmers, and as others have had colleges mostly for their advantage, at a great expense to the public, there should be some method to educate farmers for their peculiar professions. But the establishment of a school for the purpose of originating and establishing facts will be a slow process, and it will be many years before the school reaches that stage of improvement already known to our best farmers; and many more years before the improvements will be taught and disseminated; there are among our most intelligent farmers a great deal of valuable information—many important facts which make up the science of practical farming. The speaker suggested as a plan that four or five of our best practical farmers, of long experience, whose hands were familiar with farming implements, should be appointed as a Board or Institute, who should spend a year, or more if necessary, in collecting valuable facts, and the best practice in agriculture, testing doubtful subjects themselves, and by others who would aid them, and settling as far as possible uncertain questions; and then have the results of their labors published, and the work used as an occasional reading book in the common schools, that the best system of practical farming in our own country might be scattered broad-cast and go into every family in the State. This would be a short way of making a great improvement at little expense. In addition there should be a text book containing the elements of chemistry, geology, botany, and other natural sciences appertaining to agriculture, to be read in our schools, from which boys would learn so that they could understand works on these scienes.

Rev. Mr. Sanger acknowledged that all professions were in the dark. He would have in addition to the board of practical farmers which the gentlemen had recommended, an able chemist.—[Mr. Cole begged leave to say that he had stated his plan imperfectly. It was his design to recommend that a man well-skilled in chemistry, geology, &c., should be a member of the board.] Mr. Sanger proceeded to show the importance of a chemist to analyze soils, and aid the practical farmers in their investigations.

Dr. C. T. Jackson spoke of the important aid an agricultural chemist would give. If a barren soil was made fertile, he could show what change it had undergone. He could show what ingredients a crop took from the soil, and what kind of manure was necessary to supply the deficiency; there is a large circle of sciences connected with agriculture. A school must be established on a liberal plan, and well supported, else it will be a failure. Professors need not be employed all the time. They could give a course of lectures, and then attend to their usual business. Most of the instruction in our colleges is given by tutors, not by professors.

Mr. Jenks of Boston, said that he had occasion to attend to farming, so had a friend; but they could find no place where they could learn the art of farming. Our farmers are deficient in agricultural education, and this evil may be remedied by a school, on a plan similar to those in Europe, and on which Prof. Hitchcock has reported.

Col. Newell, of West Newbury, said that much might be learned from a board of practical farmers,

as had been suggested, but they should have a scientific man to aid them. We do not know how to apply our manure. We need some mode to teach farmers.

Hon. Dr. Gardner, from Bristol County, said that though he thought well of the report of the Agricultural Commission generally, he differed from it in some respects. He thought it best to have agricultural instruction in connection with our colleges. This would be more economical. He then read the remarks of Dr. Wayland, of Brown University, showing that he had suggested this plan in relation to that college. He also read from Mr. Colman to the same effect. He thought an independent agricultural college would cost $100,000, perhaps $200,000.

Col. Wilder said that he had heard nothing this winter reproachful to farmers on account of their ignorance. Mr. Cole replied that he had, and that his remarks on this point extended over the space of 8 or 10 years. He was tired of hearing of it, and thought it was time to reply to it.

Col. Brooks, of Princeton, said that he had attended to various kinds of business, which had brought him in contact with different professions, and he agreed with Mr. Cole, that farmers were not behind other classes in making improvements. He found that farmers were as intelligent as any other class, and more honest. They are still and retiring, and not like some who put themselves forward with a large amount of brass in their face. He thought it best to leave farming to farmers, and let them manage their own affairs; and law to lawyers, and physic to doctors. Establishments for agricultural education should be managed by farmers, not by men appointed by the governor and council, so that it would be all mixed up with politics and offices made a sinecure for men of other professions who could not earn their bread in their own calling. Farmers are as learned in their business as these learned gentlemen; (referring to gentlemen of various professions around him;) but they are retiring. There are many intelligent farmers in the Legislature, but they are still, while a lawyer of two years growth is always talking.

Col. Page, of New Bedford, made some general remarks on the subject of agricultural education, and observed that he had come into the hall with a view of seeing farmers of the Legislature, and other farmers who meet here, and learn their views on the subject. He said that a great many were engaged in agriculture, and they had made great improvements, and now the question is, how shall they learn more? If you would have your son learn a trade, you would send him to one thoroughly acquainted with that trade; and we want an establishment where farming may be learned thoroughly.

Plums in the Wild Cherry.—Mr. William G. Churchill, Deerfield, N. H., informs us that he has had the Green Gage plum and common cherry grafted into the Pigeon cherry, on his farm, the former two and the latter three years' growth, and they are both in a flourishing condition. We have seen several varieties of the cultivated cherries growing in the Pigeon cherry (a very small red cherry) but we never saw it used as a stock for the plum.

REPORT OF THE AGRICULTURAL COMMISSION.

We lately referred to the publication of this report. It commences with general remarks on the subject of agriculture, and proceeds to show that science had done a great deal for other arts, and that it should be applied to the improvement of agriculture as well as to other branches of industry; that, for want of scientific farming our lands are becoming exhausted, all over the country, even in the fertile West; and that government should do something for the education of farmers, qualifying them for their calling, as well as educate men for other professions.

Since the appointment of this commission, Prof. Hitchcock, one of the members, has travelled in Europe, where he examined into the character of a large number of agricultural schools, on which he has made a report in detail, which constitutes the principal part of the commissioners' report. This part furnished by Prof. H. shows a great amount of labor, and close investigation, and that he had diligently and ably attended to his commission. It contains a large amount of interesting matter, which may aid as imperfect models in the establishment of similar institutions in this country. But as the governments and character of the people in Europe differ widely from our own, it cannot be expected that any foreign institutions will serve as a perfect model for an American school. Yet Prof. H. deserves much credit for his industry and zeal in the cause, in presenting so large amount of well arranged matter on this subject; also for the plans and suggestions which he has presented for consideration.

We copy the conclusion of the report, showing the general plans which the commission recommended.

CONCLUSION BY THE COMMISSIONERS.

With these views and statements, the commissioners having had the various subjects committed to them under consideration, and feeling that the great object of agricultural education is one of vital importance, not only to the farmers of Massachusetts but to the prosperity of the commonwealth, beg leave to submit the subjoined recommendations, and earnestly to commend the whole subject to the favorable attention of the Legislature.

But, inasmuch as it has been the custom of the State to disburse her funds for educational and charitable purposes, so as to encourage and enlist private munificence in conjunction with legislative aid, your commissioners offer their recommendations on the following conditions:

1. To carry out the foregoing views, the commissioners recommend the appropriation by the Legislature of twenty thousand dollars, for the purpose of establishing a Central Agricultural College, with a Model and Experimental Farm; said institution to be open to all classes of the commonwealth, and in the government of which the State shall be interested so far as may be deemed expedient; provided, however, that this sum shall not be drawn for until an equal amount shall have been raised by private donation or legacy, and deposited in the treasury of the commonwealth, to constitute a common fund for this object.

2. Whenever any incorporated Academy, not exceeding one such institution in each county, shall raise a fund of two thousand dollars or more, towards establishing and supporting a department of agricultural instruction, with lands suitable for experiments, it shall be entitled to draw from the treasury of commonwealth the sum of two hundred dollars annually, provided, however, that when the number of scholars receiving instruction in agriculture shall be less than ten, the aid of the State shall be withheld.

3. The undersigned recommend the establishment of a State Department of Agriculture, to consist of a board of commissioners and a secretary, whom they shall annually appoint, which board shall sustain a similar relation to agriculture and the schools connected with it, as the board and secretary of education do to primary schools. This board shall consist of one member from, and to be elected by, each of the incorporated agricultural societies now receiving the bounty of the State, which board shall have power to locate, organize and put in operation the college contemplated by the foregoing recommendations. The duties of the secretary shall be, under the direction of the board, to give lectures in the various parts of the commonwealth, whenever it may be deemed expedient, on the science and practice of agriculture; to receive the returns of the incorporated agricultural societies, and make a digest of the same in the form of an annual report to the Legislature; to collect agricultural statistics and information in the various departments of this science; to correspond with local societies in this and other lands; to visit individually, in connection with the board, the exhibitions of the various county societies; and to promote, by such other measures as the board may devise, this most important branch of human industry.

4. The commissioners further recommend, that inasmuch as the aid now rendered by the commonwealth to agricultural societies was granted with reference to a very different state of things, when the population was smaller, agricultural products fewer, and all industrial pursuits were sources of much less revenue to the State; and in view of the increase of population, productions and revenue, an *additional* grant of one hundred dollars annually be made on every thousand dollars of the permanent fund of the several agricultural societies, which are or may be entitled by the present laws to the bounty of the State. Provided, however, that this sum shall not exceed nine hundred dollars to any society per annum.

5. That a premium, of such an amount as the Legislature may deem judicious, be offered for the best Elementary Treatise on Agriculture, suitable for common schools; said premium to be awarded by the Board of Agriculture, if such be created, or, if not, by a committee to be appointed by the Governor and council.

6. That after the common school fund shall have reached the sum of one million of dollars, and the Western Railroad sinking fund shall have been adequately secured, all proceeds of lands belonging to the commonwealth in the State of Maine, and of the claims of Massachusetts on the federal government, shall be reserved to form a fund, the income of which shall be appropriated, at the discretion of the Legislature, for the encouragement or support of institutions for instruction in agriculture, for charitable purposes, and for education.

In conclusion, the commissioners have not deemed it expedient to report in favor of aid, at this time, to the other subjects committed to them for consideration, or to submit any more specific plans than those embraced in these general recommendations, or such as may be drawn from the substance of this report, leaving for the wisdom of the Legislature, or any Board of Commissioners which may hereafter be appointed, more perfectly to develop plans and modes of action.

Signed, MARSHALL P. WILDER,
EDWARD HITCHCOCK,
SAMUEL A. ELIOT,
THOMAS E. PAYSON,
ELI WARREN,
Commissioners.

For the New England Farmer.

COLOR OF HOUSES.

MR. COLE:—In the Farmer of March 15th, an article appeared over the signature of J. W., upon the color of houses, in which the writer says, it is *his* opinion, and no doubt that of a large portion of your readers, that the use of neutral tints for such purposes displays "a lamentable want of good taste in the owners of many of our cottages, country seats, &c., which would otherwise beautify our hill-sides, plains and valleys." Now this may be true; still, I am slow to believe that any considerable portion of the readers of the New England Farmer are so utterly devoid of taste as to hold to such absurd notions as this. And if I may be allowed to express an opinion, your readers who have any pretensions to taste would say, that the softened shades of color now used are generally in good taste, and, contrary to the opinion of J. W., white lead is decidedly bad taste.

Lest this should seem to rest upon my simple assertion, I will give the reasons that lead me to such conclusions. Firstly—*Pure white* will not harmonize with nature at all, except in infinitesimal portions. Secondly—When approaching a situation, of which a great white house forms the foreground, the beauties of surrounding field and meadow can never be properly appreciated in consequence of the "horrid glare," particularly on a bright summer's day. Thirdly—When viewing the same from a *distance*, the eye is irresistibly drawn to the house, and the mind cannot be divested of the idea, that it is a great blot on the fair face of nature; consequently it does not give us that satisfaction that it otherwise would, were this huge glaring object softened down to some quiet shade of color.

Again, if white is so beautiful, would not nature, (where we are to look for perfection) have used it with a more lavish hand? Certainly. But in

lieu of white, what do we find? Soft shades of color —the earth in *brown and grey*—the trees and grass in *green*—the waters in *blue and green*—the sky in *blue;* no *white* any where, except the few delicate flowers, and the wide, dreary waste of snow in winter.

It is true one shade of color will not answer indiscriminately for all objects, whether large or small, or in all situations; but as a *general* rule, artists in colors give us the following: the smaller the edifice or the more it is hidden by nature's drapery of foliage and flowers,—the lighter shades of coloring should be used; but in proportion as it rises in dignity or importance, or the more exposed by the barreness of the site, the *warmer* and *darker* may be the coloring.

As a *finale* to this communication we take from Downing's Cottage Residences (to which, with Country Houses, by the same author, we refer J. W. for correct taste in such matters) these remarks by Uvedale Price:—"One of the most charming effects of sunshine, is its giving to objects not merely light, but that mellow golden hue so beautiful in itself, and which, when diffused as in a fine evening over the whole landscape, creates that rich union and harmony so enchanting in nature and Claude. In any scene, whether real or painted, when such harmony prevails, the least discordancy in color would disturb the eye; but if we suppose a single object of a glaring white to be introduced, the whole attention, in spite of all our efforts to the contrary, will be drawn to that one point; if many such objects be scattered about, the eye will be distracted among them. Again, (to consider it in another view,) when the sun breaks out in gleams, there is something that delights and surprises, in seeing an object before only visible, lighted up in splendor, and then gradually sinking into shade; but a whitened object is already lighted up; it remains so when everything else has retired into obscurity; it still forces itself into notice, still impudently stares you in the face. An object of a sober tint, unexpectedly gilded by the sun, is like a serious countenance suddenly lighted up by a smile; a whitened object like the eternal grin of a fool."

Furthermore, *Downing* says—"There is one color, however, frequently employed by some painters, which we feel bound to protest against most heartily, as entirely unsuitable, and in bad taste. This is *white*, which is so universally applied to our wooden-houses of every size and description. The glaring nature of this color, when seen in contrast with the soft green of foliage, renders it extremely unpleasant to an eye attuned to harmony of coloring, and nothing but its very great prevalence in the United States could render even men of some taste so heedless of its bad effect. No painter of landscapes, that has possessed a name, was ever guilty of displaying in his pictures a glaring white house, but, on the contrary, the buildings introduced by the great masters have uniformly a mellow, softened shade of color, in exquisite keeping with the surrounding objects."

If Uvedale Price and A. J. Downing are not authority in matters of taste, pray who is?

Boston, March 17, 1851. J. B. D.

☞ A man too busy to take care of his health is like a mechanic too busy to take care of his tools.

☞ Sheep abhor rains and wet in winter. These injure them more than cold or dry snow.

For the New England Farmer.

MANURING GRASS LAND—PLOUGHING IN OATS.

When is the best time to put manure on mowing land, is a question that may be answered pretty much as the following;

"Would you know the best season to laugh and to sing,
'Tis summer, 'tis autumn, 'tis winter, 'tis spring."

After near 50 years experience, I would say, put manure on to mowing land at any time from taking off a crop of hay, until the grass has fairly started for another crop the following spring. If the manure be coarse, it will not do so well to put it on late, but if it is fine, it may be spread after the grass is up in the spring two inches, with good effect, more particularly if it should rain soon after; and the better way is to spread the manure directly from the cart or wagon, and not put it out in heaps at all. And as to ploughing in oats, I would say also, after about the same experience, where the soil is dry and mellow, it is better to plough them in, always supposing the ground to have been well and deeply ploughed before, and harrowed previous to sowing; then a shallow ploughing, with sufficient harrowing, &c. after, to smooth off, does the work up so as to give good prospect for a crop.

An old Subscriber and Constant Reader.

For the New England Farmer.

PREPARATION OF SEEDS.

Mr. Cole:—Having often witnessed the destruction of seed, caused by the depredation of birds upon grain fields, and the various expedients that have been resorted to by farmers to guard their fields against these depredators having generally proved ineffectual, as a means of protection, it is my purpose to excite some inquiry upon this subject by giving a statement made to me by a practical farmer, as the result of his experiments upon the preparation of the seed, which he avers has resulted in the discovery of a solution, by which grain may be prepared, rendering it so distasteful to any kind of fowls, that they cannot be induced to pick it up. That he has tested this solution with the seed for nine years, in five different localities, and in no instance has it failed of protecting it from the depredation of birds. That the cost of preparation does not exceed twenty-five cents for a bushel of seed, and is in no wise detrimental to its growth. And that the test was particularly satisfactory when his field was adjoining that of his neighbor; the birds gathering in large numbers upon his field, passing directly over that which he had planted with the prepared seed. The solution being very simple in its composition, renders it very difficult, if not impossible to demonstrate its utility without exposing the secret; in that case no letters patent could issue to secure an interest to the inventor.

The importance of such a discovery is fully stated by Hon. Daniel Webster in a correspondence with the inventor, from which I am permitted to take an extract.—"If you have succeeded in such a discovery, relating to the preparation of seed, you have accomplished something highly important. * * * * Of course you are at liberty to prove the utility of your discovery on any part of my farm, and you will be at no expense for men, teams, or ploughs, &c." In consideration of the general importance of such a discovery to the agricultural in-

terest, I suggest that it would be a proper subject for legislative bounty, on the principle recently adopted for the discovery of the causes of the potato rot. This subject is respectfully submitted to the consideration of the members of the Legislature now in session, to agricultral societies, and the public generally, for a proper investigation of its utility.

Bedford, March 22. J. W. S.

Remarks.—The writer of this article will see, on reflection, the impropriety of making such a communication without his own or his friend's name. Suppose the Legislature was disposed to act on the subject, to whom could they apply for an investigation?

For the New England Farmer.

PROGRESS OF AGRICULTURE.

There has been a vast improvement in the various farming operations since the commencement of the present century; many old systems have been abandoned, and new and better ones adopted. Science has lent its aid to the cause: in short the subject has received a general impulse.

Many tracts of mowing land which were formerly uneven and abounded with rocks and brushwood, now present a smooth and beautiful surface. The neat rail fence, stone wall or the live hedge are taking the place of unsightly log or brush fence over-run with briers and shrubbery. The fruit department has received its proper share of attention; where there are now orchards of the finest fruit of many varieties, there were formerly few trees that produced any worthy of cultivation. Farming implements of improved construction and superior workmanship, combining the qualities of lightness, strength, and saving of labor, are usurping the place of the clumsy and unwieldly ones of former days.

Agricultural papers, which were once few and far between, are now found in nearly every family throughout the length and breadth of the land, diffusing information broadcast, which is springing up a hundred fold, and which is every day visible, in the landscape around us. There are other improvements which might be enumerated, but the above will suffice as examples. Should the same spirit continue for years, we shall vie with, and perhaps outrival the best agricultural portions of Europe in the productions of our soil. We need not fear that the subject will be exhausted; for Europe, after many centuries' experience in cultivating the earth, is far behind China in their knowledge of many branches of husbandry. O. V. Hills.

Leominster.

For the New England Farmer.

BIRDS.

Mr. Cole:—I find by making out a list of birds, that we have at least 80 kinds that are common in this town; and I also find that there are very few people that know what they live on, or whether they are useful or not. It is well known to naturalists, that a large majority of birds live wholly, or partly, on insects; some on one kind and some on another. For instance, the robin lives on worms, grubs, &c., until cherries, currants and berries are ripe; when these are gone, you will see them in the fields again, in search of grasshoppers, worms, &c., and then in winter they live on cedar and sumac berries, &c., thus changing several times in the course of the year.

Now my object in writing at this time is to get information, and I hope that some of your correspondents who are qualified will give us, from time to time, the history of our birds, or answer the following questions about them, viz: what does a blue bird, or any other kind of bird, live on? of what use are they? should they be killed, or should they not? and what are their habits? I think that if we could get the history of one bird in each of your numbers, that it would be space well taken up.

Pelham, N. H. B. F. Cutter.

For the New England Farmer.

GRAFTING IN ODD AND EVEN YEARS.

Mr. Cole:—In looking over the 2d Vol. of the N. E. Farmer, I noticed at page 30th, a call for facts in relation to the year of grafting having an influence on the year of bearing of apple-trees, and as I have a little *practice* in point, it is at your service.

In the spring of 1845, I took scions from a Baldwin apple tree that bore invariably in odd years and inserted them into a standard. The next year I took scions from the same tree as before, and inserted them into another standard. The result is as follows: The tree first grafted bore fruit in 1848, '50.

On the second tree about one-half the scions bore fruit in 1849, the other half in 1850. The trees grafted were natural fruit of the same variety, and great bearers every year.

Yours, P. L. Converse.

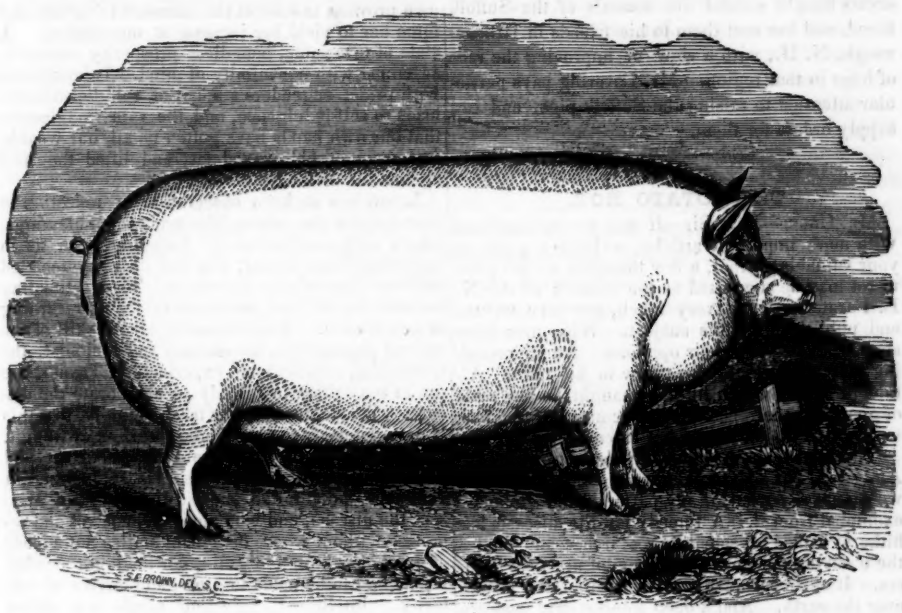
Woburn, March 24, 1851.

NIGHT SOIL—ITS VALUE.

The best of all manures is the one which in our country is almost universally wasted. In Belgium, where agriculture is carried to great productiveness, they "order things differently." There, the estimate is, by *nice* calculation, that it is worth $10 for every individual, man, woman and child. We traverse sea and land, send to Africa and South America to bring elements of fertility which at home we throw away on every farm in the country. What an immense amount is wasted in our cities! It must be the most valuable, containing the elements of all kinds of food consumed by man, and in returning these to the soil, we return the identical constituents which former crops and animals had taken from the land. Night soil contains the phosphate of lime, which is indispensable to the growth of animals' bones and to the nutriment of plants, and which is not supplied from the atmosphere, like carbonic acid and ammonia. All fluid and solid excretions should be preserved by mixing them with burnt clay, saw-dust, ashes, peat or wood charcoal, &c.

We have a great deal to learn, and alas, much more to practice, that we have learned.—*The Plow, the Loom, and the Anvil.*

Fine Mutton.—Mr. John A. Pierce, Stanstead, Canada East, dressed a sheep last fall, of the Leicester breed, 1 1-2 years old, that weighed dressed 125 lbs. Also a lamb six months old that weighed 65 lbs.



THE SUFFOLK PIG.

The Suffolk breed of hogs is comparatively of recent introduction into this country, so they are not generally known except by reputation. Their fair fame seems to be pretty well spread over the country. It seems to be the general opinion of those who have kept this breed that they produce more pork, in proportion to the food they consume, than any other race, and they are said to be less dainty or squeamish about their food than other hogs generally.

The pork of the Suffolk breed is of a superior quality, being firm, remarkably sweet and tender; and the high estimation of its quality is evinced by its usually selling in the market two cents higher on the pound than common pork. The lard is also excellent, being very white and firm.

These hogs are short, and round; the head, legs and tail very small, so are the bones. Dealers in the market who are acquainted with this breed, say that a hog that weighs 400 lbs. will make 50 lbs. more pork for the barrel than common pork. They have less rough fat than usual. The skin of this race is so thin that the blood veins appear distinctly through it. Notwithstanding the legs of the Suffolk pig are so very small, yet they do not lose the use of them on becoming very fat, as is the case with some other breeds.

One important recommendation of this race is that they are remarkably quiet and peaceable, perfectly free from that savage and malicious disposition that often characterizes the hog, and makes the very term a reproach.

Last winter Mr. J. L. Lovering, of Hartford, Vt., brought to this market one of the finest lots of Suffolk pork ever offered here. Some of the hogs weighed 400 lbs., and some pigs only 8 or 10 months old weighed 300 lbs. It was sold at an extra price, and we purchased some of it, and have not grudged the extra cost, as it is more than compensated by the superior quality.

Some complain that this breed has not sufficient size, but we think it is sufficiently large for profit. The pork is very thick even on the sides, so that there is no deficiency in this respect, even in pigs of moderate size.

Such is the general character of the Suffolk pigs by those who know them well; and those who have bought them, converted them into pork, and consumed it, and now have no interest in the sale of pigs or pork, give the same favorable account of them. We are aware that our statement is a high commendation of this race, and we hope that they will sustain their high reputation, as they will be a great improvement, and an important advantage not only to the agricultural community, but to the consumers of pork generally. But in order to maintain their character, breeders must not sell every runt or refuse pig, for such there will be in all races, occasionally, for breeders, but they should sell for this purpose none but the best. Bad management in breeding, and the sale of poorer animals to propagate from, will bring the finest animals into disrepute.

Our engraving was drawn from a fine pig, which Mr. J. L. Lovering, of Hartford, Vt., recently sold to Mr. Alonzo Andrews, 38 School St. Mr. An-

drews bought several fine animals of the Suffolk breed, and has sent them to his friends in Hillsborough, N. H., with a view of improving the race of hogs in that region. Mr. Lovering pays particular attention to raising the Suffolk pigs, and can supply orders for them.

For the New England Farmer.

THE POTATO ROT.

Mr. Cole:—Dear Sir—If you are not burdened with more important articles, waiting a place in your valuable journal, a few thoughts on the potato rot may be suggested to the readers of the N. E. Farmer. Much, very much, has been written and published on this subject. Wise men have spoken, and shown their opinions. An unpretending individual would also throw in his mite. Although it may weigh little, or naught, in the scale of good, yet the reflection will remain, that he has, with the best aim, done what he could.

This insidious disease pervades not only the American, but also the European continent. And we cannot say what, if any parts, of the globe are exempted from it. A remedy for the disease has hitherto baffled all scientific researches, and eluded the observations and experiments of practical farmers. It still continues to stalk with fearful strides over the earth. And a deep interest and concern to effect a cure has become almost universal. And well it may; for it would be very unwise and illaudable to cease from efforts to effect a remedy, unless it can be demonstrated that this specific vegetable, unlike any precedent in the vegetable kingdom, has had its day, run its course, and is to become extinct.

We perceive by the public journals, that the Legislature of Massachusetts has offered a premium of $10,000 for a cure of the potato rot, to endure five consecutive years. We apprehend no legitimate claim to that premium will ever issue, for no remedy can ever be effected until the subject is taken up and carried out in the right way.

The physical cause of the malady may be considered by the scientific classes as the great desideratum. But suppose the cause were obvious, and incontestible, what then? Would the remedy follow, as a thing of course? Whether the cause be in the tuber, the stalk, the atmosphere, or any where else, still the *remedy*, not the cause, would be the grand desideratum. How many diseases, incident to the human system, baffle the efforts of the most observing and skilful physicians to effect a cure, while the causes are perfectly obvious. The cause of cholera is supposed to be no longer hidden; but can its fatal attack be warded off, where a predisposition to receive it exists? This insidious disease—the potato rot, like the pestilence that walks in darkness, and wastes at noon-day, lies beyond the control of human agency alone. Enough has been done already, it would seem, to convince us of the inefficiency of physical means. To expect a cure, therefore, without the concurrence of divine agency, is both vain and absurd.

In concurrence with many serious, reflecting minds, we apprehend the disease is involved in, and predicated upon a moral cause—not coming upon us as a vindictive scourge, but as a salutary means to renew in us a vigorous and abiding sense of our dependence—sent as a paternal corrective of the sin of ingratitude—of wanton luxuriating in the bounties of Providence, and vain boasting of our own prowess to control the elements of earth, and force her to yield her increase at our bidding. A state of invariable, boundless prosperity cannot be sustained with equanimity of mind. It intoxicates with pride; engenders a spirit of self-dependence; leads to self-indulgence, and the vain imagination that our own hands have gotten us all our wealth. Jeshurum of old waxed fat, and lifted the heel against his divine benefactor.

It requires no keen observation or reflection to perceive that the potato, like many other blessings, which earth and heaven are lavishing upon us in superabundance almost, was not duly appreciated until the time of privation came. Then estimating its value by the loss, we begin to feel a returning of dependence. And, foresooth, all the skill of the natural philosopher, the chemist and geologist, the theoretical, practical and experimental farmer, are put in requisition to remedy or ameliorate the disease. We do not say, nor mean to imply, that this is not a laudable course of procedure. Far from it. But do say, that it lacks the most important and preliminary step in the process, viz., a looking in penitence, prayer and supplication to Him who sent the disease, and who alone can control and remove—without whose benignant smiles not a blade of grass, nor kernel of grain, nor field nor garden vegetable can be made to grow, and arrive at maturity. Intelligent, reflecting minds may dilate this point of the subject at great length. But we forbear; "a word to the wsse is sufficient."

It may be asked by some why other productions of the earth, of less easy culture, and less prolific yield, are exempted? But the question is totally irrelevant to the case; and resolved into the wisdom of the Almighty, whose paths are in the deep and mighty waters, and whom none by searching can find out. It is enough to know that a specific calamity is upon us, which fills many with deep, solemn concern, and may justly fill all with fearful, trembling apprehension. But the time to despair, we trust, is not yet. The bow of promise is still in the cloud. To plant and cultivate with industry, patience, and cheerfulness, all the varieties of seeds, not excluding the potato, even, is an obvious and imperative duty. But let us not vainly imagine that planting and cultivating is our whole duty. The higher duty of firm reliance on our divine benefactor to give the increase, has been, we fear, too much and too generally overlooked already. To continue such a course will have no direct tendency to avert a general blast on the productions of the earth; much less to obviate the one now prevalent. We have indulged the hope that, like many annoying insects, which stayed their appointed time, and then became extinct, the potato disease, after effecting the moral purpose for which it is sent, would disappear and be seen no more.

Thus we have stated, as we apprehend, the best and most feasible remedy for the potato disease. But we would by no means enter the list of those who may compete for the offered premium. Being on the threshold of four score years, we hardly dare indulge a personal interest in the prospective issue of that proposition. But should it be our lot to stay to see the millions of farmers restored to a competent supply of that most valuable vegetable esculent—the potato, we should rejoice with unspeakably greater joy than at the reception of thousands and tens of thousands of silver and gold.

March 26, 1851. An Eastern Farmer.

TWELFTH AGRICULTURAL MEETING

AT THE STATE HOUSE, APRIL 1, 1851.

Hon. B. V. French in the Chair. Subject,—Manures.

The President opened the discussion. He said that there was no subject so important as this.—He as well as others had made mistakes in the use of manures. Some farmers follow the old mode, and only apply the manure from their cattle and swine. We may as well make bread without yeast as raise crops without manure. We ought to magnify our compost heaps. Manure dropped in our barn-yards in the summer wastes by exposure. If we apply leaves from the forest, to save it, we rob them. If we have peat bog, there is nothing better. It is best to dig peat in the fall and expose it to frosts and air. He considered it the best absorbent he had found. It absorbs and saves the urine. After being mixed with manure, it should undergo fermentation, else it will produce sorrel. We need some absorbent to take up the ammonia and hold it until the manure is applied. He had found his account in using 30 bushels ground bone to the acre. Guano had produced excellent effects in some cases; but with him the results were not satisfactory. Much depends on applying manure to the soil. He once applied 5 cords to half an acre, and ploughed it in. He ploughed other lands by the side, and then applied manure to all alike. But the crop was no better when the extra quantity of manure was ploughed under. He thought he should see its effects in the grass, but he never saw any benefit from it. Compost manure should be shoveled over and fermented, but not heated so as to fire-fangle. On all red sandy soils impregnated with iron, lime is good, but generally there is no benefit from it. There are in this State over 300 towns, and on an average 100 farmers to a town. Each loses on an average five dollars in saving and preparing manure for want of information, and five dollars more in the application, making a loss to each farmer of $10, or over $300,000 to the State annnally.

Mr. Sheldon, of Wilmington, said that he wished to make a few remarks on the subject discussed at the previous meeting. Leave was granted. He said that he agreed with Mr. Cole, that farmers had made greater improvement than any other profession. In ploughing they now dispensed with half the time and hands formerly used, and did their work better. In raking hay, one man would do as much as four in the old way. With a simple machine one man would do as much in weeding onions, as four men with hoes. Have other professions made equal progress? Numerous other improvements might be named. Farmers are called ignorant, because they cannot make exact estimates on the expense for manure, and cost of crops. It is wisely ordained by the God of nature that exact experiments cannot be made. No person can tell what it costs to make a pound of butter. In raising crops an exact estimate cannot be made, as the benefit to the land cannot be reckoned. When riding lately, a gentleman said to him that if a certain oak, among other trees, had been removed, there would have been more timber by the greater growth of the others; but this experiment could not be made. So farmers must make heavy draughts upon their judgment, and should not be reproached with ignorance, when exact experiments cannot be made. As to the subject for this evening, manures, he thought it was a good plan to haul out green manure in the fall, spread it and then back furrow the land, covering up the manure in the ridges, and let it become compost with the soil.

Mr. Flagg, of Worcester, inquired how he should apply his manure, which was from horses, cows, and some in compost, to a light gravelly soil for Indian corn. He had no peat.

Mr. Walker, Secretary of State, did not agree with the gentleman that exact experiments could not be made. In making compost, different materials might be used in different proportions, for several lots, and the result on the crops noted.

Mr. Chapin, of Chickopee, said that in his region, they use manure in the green state, ploughing in, but not under the sod. They think there is na advantage in decomposing manure before it is applied. They soak their corn and then roll it in plaster.

Mr. Sprague, of Plymouth county, said that the ubject of preparing and applying manures was but very little understood. On his light soil it was best to plough in the manure without composting, and it saved labor. To put manure on or near the surface is a waste. He would like to have his friend from Princeton state how farmers can make too much manure.

Mr. Brooks said that moderate crops were most profitable, and we can get this without high manuring. By collecting sods or other absorbents, and pouring on them the urine from the horse, a large amount of good manure might be made. By using materials to absorb all the liquid manure of cattle, a greal of manure may be made. A little plaster should be scattered over the cattle house, to absorb the ammonia. On his heavy land peat was not good, but it is beneficial on light soils. Dr. Dana, in his Muck Manual, led him astray by saying that two loads of peat and one of cow manure were worth as much as three loads of cow manure. Manure enough may be made on every farm by feeding the crops mostly on the farm. Grass is not exhausting. Land long cropped with it, yields well on being ploughed up for tillage.

Col. Newell, of West Newbury, thought there was no advantage in composting manures, as they may be applied in their green state without loss.

Peat in compost is good for light land, but not for wet meadows. He would spread green manure broadcast, and plough in eight inches deep on gravelly land, and then spread compost manure and work it in with a cultivator.

Mr. Brooks in answer to an inquiry as to the quantity of manure he applied to the acre, said that before he had a barn cellar he used 24 loads of 30 bushels each; but now 16 loads were of equal value. He spread and harrowed in well decomposed manure from his barn cellar, and when his crops came up he applied a little compost to them. Compost must be made of materials to adapt it to the soil.

Rev. Mr. Sanger, of Dover, remarked that the gentleman had been led astray by books, and some complained that they had been lead into an error by remarks in this hall. There must be judgment in the application of knowledge.

Mr. Flagg said that he had thought of applying clay to his soil. Manure should be adopted to the soil. It is important to know the deficiencies of a soil.

Mr. William Parker, of Sudbury, said that he was a great friend to peat. He decomposed peat in a short time by turning on it hot lye, used in bleaching in a paper mill. He had 600 gallons per week, and he had no doubt that the waste of this material in this State was equal to $30,000 annually.

We closed our report at a late hour, while some gentleman was speaking.

Subject for the next meeting, Fruits and Fruit Trees. It is expected that the Hon. Isaac Davis will preside and open the discussion.

For the New England Farmer.

ON THE CULTIVATION OF NATIVE TREES AND SHRUBS.

Continued from Page 116.

The White or Single Spruce is an inhabitant of the northern regions, and is capable of resisting the severest colds. It probably attains its greatest beauty and height in the forty-sixth parallel of latitude. As we approach farther north toward the Pole, it begins to be dwarfish in its habits.

Sir John Franklin, in his second expedition to the Polar Sea, says the spruces abound in the vicinity of the Great Bear Lake, where the clay, which lies under the soil, is firmly frozen during the greatest part of the year, and adds, although we remained there two seasons, the thaw never penetrated more than twenty inches from the surface. This tree is remarkable for being found farther north than any other tree in America.

The White Spruce sometimes attains to a very large size, if we may credit the account given of a large one, seen by Johnson, and described in his Voyages to New England, published in 1675. He says, at Pascataway, there is now a Spruce tree, brought down to the water side by our mast men, of an incredible bigness, and so long that no skipper durst ever yet adventure to ship it, but there it lies and rots.

The Single Spruce is not so ornamental a tree as the Double or Black Spruce. The leaves are of a light bluish green tint, and thinly arranged on its branches. We occasionally see some handsome white spruces, but they usually, as they advance in size, present a ragged appearance, by their branches being deprived of their leaves.

The Black or Double Spruce is distinguished from the White or Single variety, by its leaves being of a darker green, more thickly set on its branches, less slender, and tapering, and of a more robust habit of growth. Its branches are disposed in whorls, forming a conical head, of great regularity and beauty. In a moist, rich soil, it is of a rapid growth. One we planted when quite small, has attained a height of thirty-five feet, with a diameter of one foot, in twenty-five years. It was taken from the forests of Maine, in the month of August, with many others, with a sod of earth around its roots. It commenced its growth, by sending out a whorl of branches near the ground, and it has continued to do so every year since.

The Norway Spruce is a very fine tree, a native of the north of Europe, and perfectly hardy in Massachusetts. It is of the most rapid growth, and will grow in almost any soil or situation. It rises to the height of from eighty to one hundred and fifty feet, and when advanced in age, its branches are said to have a weeping habit, which gives it a very elegant appearance. It is every way a very desirable tree, and is becoming a great favorite.

The next tree of which we shall speak is the Hemlock Spruce, or as it is usually called by most persons, the Hemlock. It is a beautiful tree, and deserves something more than a passing notice, not only in consequence of its great beauty, but also of the useful properties it possesses. But these were not discovered or admitted by our ancestors. The early writers of New England, when speaking of the hemlock, express their regret that so useless a tree was found so abundantly in the country.—Capt. Jonathan Carver, who travelled throughout the interior parts of North America in 1766, and described some of its vegetable productions, when speaking of the hemlock, says this tree grows in every part of America, in a greater or less degree; it is however quite useless, and is only an incumbrance to the ground, the wood being of a very coarse grain, and full of wind-shakes or cracks.—The valuable property called the *tannic acid*, which is so abundantly found to exist in the bark of the hemlock, was wholly unknown to the early settlers of New England, and when they first cautiously used it, they mixed it with the bark of the oak. The present importance of the hemlock to the manufacturers of leather can hardly be estimated. I should suppose that all the trees in our forest could not furnish a supply of bark for many years, without the aid of the hemlock. All the species of oaks, together with the chestnut and birches combined, although all of these trees possess the tanning principle in a greater or less degree, and are used in the north of Europe and England to tan leather, could, but for a comparatively short period, furnish us with bark for tanning. But the hemlock, fortunately for us tanners, is one of the most widely diffused tree in all North America.—And what is very remarkable, and can hardly be said of any other tree, it is found in every variety of soil and situation. It is a tree also that does not suddenly disappear, as it approaches the north, as many trees do, but as it proceeds and encounters

greater degrees of cold, it becomes dwarfish in its habits, until it reaches the sixty-fifth parallel of latitude, when it no longer is seen. The hemlock is found growing in dense masses in swamps, and on rocky hill-sides, scarcely covered with earth. It also is found growing alone in extensive tracts of forests, crowding out all other trees, or mingling singly with other evergreens in low moist woods, or leaving the low lands, it mixes with the birches, beeches, and maples. Micheaux says, it begins to appear about Hudson's Bay, near Lake St. John, and in the neighborhood of Quebec it fills the forest, and in Nova Scotia, New Brunswick, the State of Maine, Vermont, and a considerable part of New Hampshire, it constitutes three-fourths of the evergreen woods. Since Micheaux's time, the hemlock is found to abound in New York, Oregon, and the new territories of Minnesota and Missouri. It is likewise found frequently in abundance in all that large tract of country, comprising what is called British America.

The hemlock is likewise distinguished for the close order in which they sometimes stand.—There is hardly a tree in our forests that will grow and flourish in so crowded a manner as this tree. And in consequence of this close habit of growth, it has received its name of hemlock, from their branches hemming, and interlocking each other. If such is the abundance of the hemlock, surely our tanners need not apprehend a failure of bark for many years to come. Several years since, we spent a day in the forests of Maine, in company with several bark peelers, and here in these dark and silent forests, with nothing to break their stillness except the heavy blows of the woodman's axe, the tap of the woodpeckers, or the plaintive note of the wood-thrush, we saw the hemlock in all the decrepitude of old age. It is only when found growing without interference from other trees, or standing singly on the lawn, that we see this tree in all its beauty, and it is then we are led to adopt the language of Gilpin in his remarks on Forest Scenery, when he says, "It is no exaggerated praise to call a tree the grandest and most beautiful of all the productions of the earth."—The value of the hemlock as a timber tree is becoming every day more valuable, as the pine becomes more scarce. This tree requires the same mode of culture and manner of transplanting as the pine, and is most successfully grown in groups. It has been used for hedges, and is said to bear clipping well.

The Arbor Vitæ is not common in Massachusetts. It is a handsome tree, and of easy cultivation. When raised from seed, care should be taken the first and second year of its growth to protect the plants from the frosts of winter, by covering them over with straw, or something of the kind, or by laying them down, and covering them with earth. The young plants are frequently taken from the forests of Maine, and offered for sale in the spring, and when care is used in keeping the roots moist, they readily grow and thrive, when transplanted. The Arbor Vitæ makes a most beautiful garden hedge, and bears clipping well. The Oriental or Chinese Arbor Vitæ is found in China and Siberia, in rocky situations, and has been cultivated in Massachusetts, but is found to be rather tender when young.

There is another tree belonging to the cypress tribe, not an evergreen, and found in the swamps of the Southern States, and is called in the Carolinas and Georgia the Bald Cypress. It is said to grow well in Massachusetts, having been introduced into the Botanic Garden in Cambridge. A friend of ours, a few years since, transplanted several cypress trees taken from New Jersey, which is supposed to be its northern limit, but they have been all destroyed by our severe winters. The American Holly, is a fine evergreen tree and in Micheaux's time, was thought not to be seen north of Connecticut. It is however to be found in Massachusetts, where it attains to the height of ten or twelve feet, but more frequently but six or eight, so that it can therefore be only ranked with us as a shrub. We have never seen it in the eastern part of Massachusetts, and it is not probably to be found on the north side of Massachusetts Bay. It is said it can be propagated by seeds, or plants taken from the woods. We should be pleased to know in what manner we can cause the seed of the holly to germinate; all attempts hitherto made by us, at producing plants from seeds, have failed, although we have endeavored to follow the mode laid down by Loudon and others. S. P. Fowler.

Danvers, March 28, 1851.

[To be continued.]

PROFITS OF FARMING.

Within a few years a great deal has been said on this subject, and some great stories have been told, some of which are true. A single instance of great crops does not show the profits of farming generally, nor does a failure of crops show that the business is poor. The farmer's business is not all sunshine, nor is it all shade, as some have intimated. He is always blessed with seed time and harvest, and generally with fruitful fields; yet occasionally he has reverses.

To ascertain the profits of farming, we must take the history of a farmer during his career on the stage of action, and we now propose to give an example. Mr. Nathaniel P. Morrison, of Somerville, was married at the age of twenty-two years, and the following was the property which he and his wife possessed when they became one: Two cows, four sheep, one year old colt. In 1842, when he bought his farm in Somerville, he had accumulated $5000 in cash, and he owned a farm in the country. His statement below shows how he has succeeded in farming in Somerville. Besides his permanent improvements in buildings and other property gained from the sales of produce, amounting to $5,153, he has made great improvements on his land, and since his statement he has expended $200 or $300 for a front fence, $100 for a shed, $75 for a hen house, and he has money at interest. Another great profit, much larger than usually falls to the lot of farmers, is the rise of his real estate. We will not name the amount of this, lest it affect his valuation for taxes: and besides his property in Somerville, he sold a farm in the country for $1,600.

We have occasionally visited Mr. Morrison's place, and we must say he is among the most skil-

ful of farmers, gardeners and orchardists, and every thing about his place is in good order, and wise management is seen in his operations, and this is clearly shown by his success. The item of $125 which was the difference in exchanging piano fortes, reminds us of the important fact that the same "huge paws" that lay hold of the farm implements nimbly operate on the piano forte, in a style superior to most performers. When Mr. Morrison rendered the following statement, he had $600 worth of fruit not harvested. For 25 years he has used no ardent spirit on his farm.

M. P. MORRISON'S STATEMENT.

To the Committee on Farms, of the Middlesex Agricultural Society.

In the management of my farm my object has been to improve the land and trees so as to realize the greatest profit from the least expense. I purchased my farm in 1842 for $5000. It consists of between nineteen and twenty acres; eight or nine of which includes the buildings and fruit trees; the remainder, when I purchased it, was a stony, worn-out pasture, which would not produce two hundred pounds of oats to an acre. I commenced ploughing, digging out of stones, and manuring it, till it became productive and suitable for all kinds of vegetables. I have set on the same between eighty and ninety apple trees.

I have in all about 600 fruit trees; about 40 kinds of apples, 20 kind of pears, 40 quince trees, 40 cherry trees, a few peach and plum trees. When I purchased, my orchard was principally grass ground, which I consider to be very injurious to the growth of the trees and fruit. It was impossible to plough near many of the trees in consequence of low limbs; I commenced pruning about the last of February I think, 1842, and made a dreadful havoc both to limbs and trees, as many good and experienced farmers thought, and assured me that I was "spoiling my orchard." I commenced grafting also during the same spring, and have continued to graft each succeeding year. I have taken the tops from about 60 trees, many of which were more than a foot in diameter. I gathered from one tree, the third year after grafting, 3 bbls. of Baldwin apples; fifth year, 5 bbls.

The trees are now in a healthy condition. My horses can walk under and near every tree so as to plough with all ease. I prune and scrape my trees every year, generally in February and March. Scraping I consider to be of great importance, and would recommend to all to practise the same. I think my orchard, previous to my purchasing it, never produced more than 60 barrels in a year.

In 1842 I had	45 bbls.	(early apples not included.)
1843 "	55	"
1844 "	196	"
1845 "	183	"
1846 "	116	(Russetts failed.)
1847 "	200	"
1848 "	130	(Russetts failed.)
1849 "	prospect very good.	

The nett income of my farm since 1842 up to Sept. 1st, 1849, is cash paid for

2 Wagons,	$150
Buggy and harness,	151
Horse,	120
3 Ploughs, Cart and Wheelbarrow,	83
Haycutter and Grindstone,	23
Water brought in lead pipes,	50
Barn and Sheds,	1000
Cash paid for building meeting-house,	100
House,	2500
Cash for Pear trees,	25
" " Plum " &c.,	5
" due and on hand,	791
1 Cow,	20
1 Piano Forte,	125
	$5,143

I had a partner during the first five years, whose nett income was about $1,000.

The above I consider to be a correct statement of the amount realized from 19 1-2 acres of land, and within the time specified above.

The amount paid out for labor and manure on the whole farm will not exceed $200 per year for the last three years. In 1847 the amount sold was $1,750. In 1848 about $1,200. In 1849 it will probably be from $1000 to $1,200. I consider that year to be the most unprofitable one for marketing that we have had for twenty years; many of my crops have entirely failed, such as early pears, quinces, cabbages, &c.

Somerville, Aug. 27, 1849.

Mechanics' Department, Arts, &c.

AIR, STEAM AND WATER ENGINE.

This invention of Mr. Black, described and illustrated in former numbers of the *Farmer & Mechanic*, seems in all experiments which have been made with it to be perfectly successful. Messrs. Coons & Aiken, the assignees of the patent, have constructed one on a larger scale, which was exhibited and put in operation at Albany recently, in the presence of some two or three hundred spectators. The editor of the Knickerbocker, who was present, after describing the arrangements of the machine, remarks:

"In the experiments which we witnessed, (which was only a temporary arrangement,) three of the four jets emitted very little steam if any at all, and to the surprise of all present, a single jet of steam but an eighth of an inch in diameter caused that massive wheel (weighing 1,600 lbs.) to revolve at the rate of thirty to thirty-five revolutions per minute, and no two men present were able to check the motion in the least. We were informed by the proprietors of this patent that they have several smaller engines in operation, and they all work admirably.

"This invention, we think, must produce a complete revolution in all stationary motive power. The remarkable simplicity of its entire construction, its neat and beautiful appearance, its safety, and its adaptation to all the various uses which power may be applied, together with its low price and durability, must soon give it a preference over every other engine in the market. Of its simplicity our readers may judge, when we state, that any person of ordinary capacity, whether a mechanic or not, needs but an hour's instruction to make him fully competent to manage the whole of the machinery.

"This machine will, when completed, be placed in our press-room, and taught to turn one of Hoe's

mammoth presses. When ready for company, we shall announce the same, when the public will have a better chance of understanding the wonder than any written description can possibly enable them to do at present."—*N. Y. Farmer and Mechanic.*

PAINTING.

The Dutch, who are celebrated as a people for their industrious and economical habits, have a maxim, it is said, that "painting is no expense." This, doubtless, is true. A coat of paint on woodwork, exposed to the atmosphere, tends greatly to preserve it, and as paint, when of good quality and well put on, lasts unimpared for years, the extra durability it confers upon the substance it is designed to protect, goes, no doubt, a great way toward defraying the expense. All houses should be painted. White is the best color, especially in hot climates; all dark colors having a strong tendency to absorb caloric, or the matter of heat, and by so doing to render houses much hotter than when painted with pure white, which reflects it. One story houses which have had their roofs painted with coal tar, or some other paint of a dark color, are generally insufferably hot.

The out-buildings on a farm ought, for economy's sake if nothing more, to be painted. Any structure that has cost money, ought to be preserved by every means and application possible to be bestowed. Whitewashing the walls of sheds, and fences gives a very neat and tasty appearance to an establishment, while the wash retains its brilliancy, but as soon as that is gone, the aspect is unpleasant. If a farmer possesses the means, by far the most judicious method is to bestow a good finish, and protect by a coat of paint. Durability is a prime quality in farm buildings, and they who expend their money in furnishing good structures at first, escape the heavy expenditures which cheap edifices entail on their owners, for annual repairs.

Paint applied to the farming utensils, such as ploughs, wheels, carts, &c., well repays the cost; it preserves the wood, and a well painted, neat looking instrument, is always used with much greater care and circumspection than one that is not. The cost is a mere trifle, and scarcely worthy of being taken into account, if we contemplate the utility of the process.—*Germantown Telegraph.*

Remarks.—We dissent from that part of the above article recommending white as the best color for houses, and our readers have generally seen our views on this subject which were published recently.—*Ed. N. E. Farmer.*

NEW SELF-CENTERING AND SELF-RELEASING LATHE.

Mr. Thomas R. Bailey, of Lockport, N. Y., has made a very valuable improvement in lathes for concentric turning, such as for broom handles, &c., for which measures have been taken to secure a patent. The live spindle has a sliding cone mouth into which the rough material is placed, and the slide spindle has also a cone mouth in a line with the other. The rough material is placed within these cone mouths, and must be centered, as the spindles always bear a fixed relation to one another, and the cone mouths guide the rough material to lie in a true central line with both spindles. When the slide has run its length, it strikes a cam upon the frame, and the broom handle, or whatever it may be that is turned, is thrown out from the spindles, and drops down. The turning tool can be guided by a fixed side pattern to turn out many different irregular forms. This lathe is easily attended and is very simple. It is a good, new, and useful improvement.—*Scientific American.*

Ladies' Department.

SOUPS.

The delicate and proper *blending of savors* is the chief art of good soup making. Be sure and skim the grease off the soup when it *first boils*, or it will not become clear. Throw a little salt to bring up the skum. Remove all the grease. Be sure and *simmer softly*, and never let a soup boil hard. Put the meat into cold water, and let it grow warm slowly. This dissolves the gelatine, allows the albamen to disengage, and the scum to rise, and diffuses the savory part of the meat. But if the soup is over a hot fire the albumen coagulates and hardens the meat, prevents the water from penetrating, and the savory part from disengaging itself. Thus the broth will be without flavor, and the meat tough. Allow two table spoonfulls of salt to four quarts of soup, where there are many vegetables, and one and a half where there are few. Be sure not to leave any fat floating on the surface. A quart of water, or a little less, to a pound of meat, is a good rule. Soup made of uncooked meat is as good the second day, if heated to the boiling point. If more water is needed, use boiling hot water, as cold or lukewarm spoils the soup. It is thought that potato water is unhealthy, and therefore do not boil potatoes in soup, but boil elsewhere, and add them when nearly cooked. The water in which poultry or fresh meat is boiled should be saved for gravies or soup the next day. If you do not need it, give it to the poor. Keep the vessel tight in which you boil soup, that the flavor be not lost. Never leave soup in metal pots, as sometimes a family is thus poisoned. Thickened soups require more seasoning, nearly double the quantity used for thin soups.

Poisonous Vessels.—Vessels of copper often give rise to poisoning. Though the metal undergoes but little change in a dry atmosphere, it is rusted if moisture be present, and its surface becomes covered with a green substance—carbonate or the protoxide of copper, a poisonous compound. It has sometimes happened, that a mother has, for want of knowledge, poisoned her family. Sourkrout, when permitted to stand some time in a copper vessel, has produced death in a few hours. Cooks sometimes permit pickles to remain in copper vessels, that they may acquire a rich green color, which they do by absorbing poison. Families have often been thrown into disease by eating such dainties, and may have died in some instances, without suspecting the cause. Dr. Thompson.

☞ He shall be immortal who liveth till he be stoned by one without fault.

NOTICES OF PUBLICATIONS.

THE AMERICAN REFORMED CATTLE DOCTOR; containing the necessary information for preserving the Health and Curing the Diseases of Oxen, Cows, Sheep, and Swine, with a great variety of original receipts, and valuable information in reference to Farm and Dairy Management; whereby every man can be his own Cattle Doctor. The principles taught in this work are, that all Medication shall be Subservient to Nature; that all Medicinal Agents must be Sanative in their Operation, and Administered with a view of aiding the Vital Powers, instead of Depressing, as heretofore, with the Lancet and Poison. By G. H. Dadd, M. D., Veterinary Practitioner, author of "Anotomy and Physiology of the Horse." Boston: J. G. Tilton & Co., 326 Washington Street, 1851.

The nature of this work is sufficiently indicated by the title. Dr. Dadd is a practising Veterinarian in this city, and is doing much, we trust, to bring about a reform in cattle practice, by avoiding the harsh treatment that has long been in vogue among the practitioners in this art, and substituting mild means, good management, and merciful treatment, which will commend themselves to the approval of every considerate man. This is a very valuable work, as we might reasonably expect from one who is well skilled in the science of his profession. We would commend it to farmers, and all others who keep cattle, sheep or swine.

THE GARDENER'S TEXT-BOOK; containing practical directions upon the Formation and Management of the Kitchen Garden, and for the Culture and Domestic Use of its Vegetables, Fruits and Medicinal Herbs. By Peter Adam Schenck, formerly gardener to Edward C. Williams, Esq. Boston: John P. Jewett & Co., Nos. 17 and 19 Cornhill, 1851.

This work treats of the situation, soil, laying out, manuring and management of a kitchen garden, in a very particular manner, so that any one can easily practise upon the directions. It is a valuable work, well adapted to enlighten those who are not familiar with this important department of horticulture. But very few farmers give proper attention to a kitchen garden. The study of this interesting work would render the business so familiar, that they would not fail to give more time to the subject. From a small spot, as a garden, the family may be supplied with luxuries the whole year, and in this way a great saving would be made in other provisions.

CATTLE, BY W. YOUATT AND W. C. L. MARTIN, being a treatise on their Breeds, Management, and Diseases, comprising a full History of the Various Races; their Origin, Breeding and Merits; their Capacity for Beef and Milk; the Nature and Treatment of their Diseases; the whole forming a Complete Guide for the Farmer, the Amateur, and Veterinary Surgeon, with 100 Illustrations. Edited by A. Stevens. New York: C. M. Saxton, Agricultural Book Publisher, 1851.

Youatt is distinguished for his historical knowledge of cattle, as well as for his skill in veterinary science. In this work the large number of illustrations and the history of different breeds forms a very attractive and useful feature. It contains a large amount of interesting and instructive matter.

ACKNOWLEDGMENTS.

From E. W. Bull, Concord, potatoes, which he recommends highly, as of an excellent quality, and not very liable to rot. They appear to be the Early Worcester or Riley, but as we are not certain of this, we shall plant them for experiment, in order to settle the question.

HOLLAND POTATO.—S. H. Colton, Worcester, has furnished us with a specimen of these potatoes, which were raised in Holland, Ct., from the seed about four years ago. Mr. C. remarks that they rot but slightly, yield very largely, and are of good quality. He has some for sale.

Of Jordan & Perkins, nurserymen, Corners, Vt., several varieties of apples. Among them was Slocum Sweet, Sweet Russet, Jenny Lind, Newtown Pippin, Lebanon Sweet, and Russet Pearmain. The Sweet Russet is a large apple, and excellent for baking; it seems to be identical with apples of the same name cultivated by E. Davis of Acton, and others, but it seems to be later. Lebanon Sweet is a good winter apple. Newtown Pippin is rather imperfect, as is usually the case with this fruit raised in New England. Jenny Lind is a very fair handsome apple of good size and excellent quality. By the way, this name is given to so many apples that it is no more definite than greening, Pippin, Seeknofurther, &c.

From Albert Chapman, Middlebury, Vt., Baldwin apples, which are like the Baldwins which we raise in Maine. They are harder, more flat, and of a higher color than the common Baldwin. Fine specimen of Roxbury Russet. Also Sweet Russet, of a brighter yellow than the Roxbury, and which Mr. C. says keeps the longest of any apple he raises. The quality is rather better than that of the Roxbury. It is a very fair looking fruit, and may be valuable for its late keeping. It is entirely different from the Russet Sweet mentioned above.

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